

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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### **NOTICE OF ACCEPTANCE (NOA)**

Derbigum Americas, Inc. 4800 Blue Parkway Kansas City, MO 64130

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

#### **DESCRIPTION:** Performance Modified Roof Systems over Gypsum Decks

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA# 13-0530.07 and consists of pages 1 through 10. The submitted documentation was reviewed by Alex Tigera.



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## **ROOFING ASSEMBLY APPROVAL**

<u>Category:</u> Roofing

Sub-Category:APP Modified BitumenDeck Type:Poured Gypsum

Maximum Design Pressure -135 psf

Fire Classification: See General Limitation #1

## TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

#### TABLE 1

|                   |                                      | Test                 | Product   |
|-------------------|--------------------------------------|----------------------|---|
| <b>Product</b>    | <b>Dimensions</b>                    | <b>Specification</b> | <b>Description</b>  |
| Derbigum GP       | 33'4" x 39.4"; roll weight: 90 lbs.  | ASTM D 6223          | Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.  |
| Derbigum XPS      | 33'4" x 39.4"; roll weight: 90 lbs.  | ASTM D 6223          | Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.  |
| Derbicolor GP     | 33'4" x 39.4"; roll weight: 100 lbs. | ASTM D 6223          | Mineral surfaced modified bitumen glass<br>fiber and polyester reinforced membrane<br>for torch application or Permastic cold<br>adhesive application.                |
| Derbicolor XPS    | 33'4" x 39.4"; roll weight: 100 lbs. | ASTM D 6223          | Mineral surfaced modified bitumen glass<br>fiber and polyester reinforced membrane<br>for torch application or Permastic cold<br>adhesive application.                |
| Derbigum GP/FR    | 33'4" x 39.4"; roll weight: 90 lbs.  | ASTM D 6223          | Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.                           |
| Derbigum XPS/FR   | 33'4" x 39.4"; roll weight: 90 lbs.  | ASTM D 6223          | Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.                           |
| Derbicolor GP/FR  | 33'4" x 39.4"; roll weight: 100 lbs. | ASTM D 6223          | Mineral surfaced fire resistant modified<br>bitumen glass fiber and polyester<br>reinforced membrane for torch application<br>or Permastic cold adhesive application. |
| Derbicolor XPS/FR | 33'4" x 39.4"; roll weight: 100 lbs. | ASTM D 6223          | Mineral surfaced fire resistant modified<br>bitumen glass fiber and polyester<br>reinforced membrane for torch application<br>or Permastic cold adhesive application. |



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

#### TABLE 1

| <u>Product</u>          | <b>Dimensions</b>                                      | Test<br>Specification  | Product <u>Description</u>  |
|-------------------------|--|------------------------|---|
| Derbibase               | 66' x 39.4"; roll weight: 90 lbs.                      | ASTM D 5147            | APP modified bitumen glass fiber base sheet for mechanical attachment or Permastic cold adhesive application.   |
| Derbibase Ultra         | 49.5' x 39.4"roll weight: 102 lbs.                     | ASTM D5147             | APP modified bitumen glass fiber base sheet for mechanical attachment of Permastic cold adhesive application.   |
| PRS Glass Base          | 108' x 36"; roll weight: 82 lbs.                       | ASTM D 4601            | Asphalt coated fiberglass base sheet for use in hot-mop, mechanically fastened or Permastic cold adhesive application.                                    |
| PRS Glass Ply IV        | 180' x 36"; roll weight: 60 lbs.                       | ASTM D 2178<br>Type IV | Asphalt coated fiberglass ply sheet for use in hot-mop, or mechanically fastened or Permastic cold adhesive application.                                  |
| PRS Glass Ply VI        | 180' x 36"; roll weight: 60 lbs.                       | ASTM D 2178<br>Type IV | Asphalt coated fiberglass ply sheet for use in hot-mop or mechanically fastened or Permastic cold adhesive application.                                   |
| PRS Modified Base       | 180' x 36" roll weight: 82 lbs.                        | ASTM D 5147            | SBS polymer modified bitumen base sheet.  |
| Bitutak MB              | 33' x 39.4 roll weight: 89 lbs                         | ASTM D 6222            | APP polymer modified bitumen polyester reinforced membrane.   |
| Bitutak MB<br>(Mineral) | 39.4" x 33' roll weight: 103 lbs.                      | ASTM D 6222            | Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane  |
| Permastic               | 5-gallon pails<br>55-gallon drums<br>350-gallong tanks |                        | Asphalt-based adhesive formulated especially for adhering Derbigum/Derbicolor roofing membranes, Derbibase/Ultra, glass ply sheets and glass base sheets. |
| Permastic IA            | 5-gallon pails<br>55-gallon drums<br>350-gallong tanks |                        | Asphalt-based adhesive formulated especially for adhering base sheets and Derbiboard insulation to concrete, nonnailable substrates or polyisocyanurate.  |



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## **APPROVED INSULATIONS:**

TABLE 2

| <u>Product</u>                                 | <b>Dimensions</b> | Test<br>Specification | Product <u>Description</u>                            | <u>Manufacturer</u>               |
|--|-------------------|-----------------------|---|-----------------------------------|
| ACFoam II                                      | various           | TAS 110               | Polyisocyanurate foam insulation                      | Atlas Energy Products             |
| ACFoam III                                     | various           | TAS 110               | Polyisocyanurate foam insulation                      | Atlas Energy Products             |
| Dens Deck®, Dens<br>Deck Prime <sup>TM</sup>   |                   |                       | Water resistant gypsum board                          | Georgia Pacific Gypsum Corp.      |
| Derbiboard                                     | various           | TAS 110               | Polyisocyanurate foam insulation                      | Derbigum Americas, Inc.           |
| Derbiboard CA                                  | various           | TAS 110               | Polyisocyanurate foam insulation                      | Derbigum Americas, Inc.           |
| Derbiboard Composite                           | various           | TAS 110               | Polyisocyanurate foam insulation                      | Derbigum Americas, Inc.           |
| EnergyGuard <sup>TM</sup><br>PolyIso, RA       | various           | TAS 110               | Polyisocyanurate foam insulation                      | GAF Materials Corp.               |
| EnergyGuard <sup>TM</sup><br>Composite, RA     | various           | TAS 110               | Polyisocyanurate/wood fiberboard or perlite composite | GAF Materials Corp.               |
| E'NRG'Y-3, Plus<br>UltraGuard Gold, PSI-<br>25 | various           | TAS 110               | Polyisocyanurate foam insulation                      | Johns Manville                    |
| ISO 95+  | various           | TAS 110               | Polyisocyanurate/Perlite rigid insulation             | Firestone Building Products, Inc. |
| ISO 95+ Composite                              | various           | TAS 110               | Polyisocyanurate/Perlite rigid insulation             | Firestone Building Products, Inc. |
| High Density Wood<br>Fiberboard                | various           | TAS 110               | Wood fiber insulation board                           | Generic                           |
| Multi-Max-3, Multi-<br>Max FA-3                | various           | TAS 110               | Polyisocyanurate foam insulation                      | Rmax Inc.                         |
| Perlite Insulation                             | various           | TAS 110               | Perlite insulation board                              | Generic                           |
| Securock                                       | various           | TAS 110               | Water resistant gypsum board                          | USG                               |
| Structodeck                                    | various           | TAS 110               | Woodfiber insulation board                            | Masonite                          |
| Type X Gypsum                                  | various           | TAS 110               | Fire resistant rates gypsum                           | Generic                           |
| Wood Fiber                                     | various           | TAS 110               | Wood Fiber Insulation Board                           | generic                           |



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## **APPROVED FASTENERS:**

#### TABLE 3

| <u>Fastener</u><br><u>Number</u> | <u>Product Name</u> | <b>Product Description</b>         | <b>Dimensions</b> | <u>Manufacturer</u><br>(With Current NOA) |
|----------------------------------|---------------------|------------------------------------|-------------------|---|
| 1.                               | Polymer Gyptec      | Insulation and Base sheet Fastener | Various           | OMG, Inc.                                 |
| 2.                               | OlyBond 500         | Insulation adhesive                | Various           | OMG, Inc.                                 |

# **APPROVED SURFACING:**

#### TABLE 4

| <u>Product</u> | Test<br><u>Specification</u> | Product<br><u>Description</u> | <u>Manufacturer</u>         |
|----------------|------------------------------|-------------------------------|-----------------------------|
| APOC 302       | TAS 121                      | Roof coating                  | APOC, Subsidiary of Gardner |
| APOC 400       | TAS 121                      | Roof coating                  | APOC, Subsidiary of Gardner |
| Karnak #97 AF  | TAS 121                      | Roof coating                  | Karnak                      |

# **EVIDENCE SUBMITTED**

| <b>Test Agency</b>              | <b>Test Identifier</b> | <b>Description</b> | <u>Date</u> |
|---------------------------------|------------------------|--------------------|-------------|
| DDI Constantina Matariala       | DDC 027 02 01          | ACTM D (222        | 00/14/12    |
| PRI Construction Materials      | PRS-026-02-01          | ASTM D 6222        | 09/14/12    |
| Technologies                    | PRS-030-02-01          | ASTM D 6223        | 04/15/13    |
|                                 | PRS-033-02-01          | ASTM D 6223        | 04/15/13    |
|                                 | PRS-029-02-01          | ASTM D 6222        | 04/15/13    |
|                                 | PRS-023-02-01          | ASTM D 6162        | 09/14/12    |
| Trinity ERD                     | P20080.07.11-1         | ASTM D 6509-09     | 07/21/11    |
|                                 | P20080.07.11-2         | ASTM D 6509-09     | 07/21/11    |
|                                 | P20080.09.10-1-R1      | ASTM D 6509-09     | 09/20/10    |
|                                 | P20080.09.10-2         | ASTM D 6223        | 09/09/10    |
|                                 | P20080.09.10-7         | ASTM D 6223        | 09/09/10    |
|                                 | P20080.09.10-6         | ASTM D 6223        | 09/09/10    |
| Exterior Research & Design, LLC | 10720.10.97-1          | Uplift TAS 114     | 10/17/97    |
| Factory Mutual                  | 2W3A6.AM               | Class 4470         | 02/21/97    |
| Research Corporation            | 2Y3A2.AM               | Class 4470         | 02/21/97    |
| •                               | 2B5A5.AM               | Class 4470         | 05/14/97    |
|                                 | 1D7A4.AM               | Class 4470         | 11/9/98     |
|                                 | 2B5A7.AM               | Class 4470         | 03/1/99     |
|                                 | JI3007274              | Class 4470         | 2/7/01      |
|                                 | JI 3003642             | Class 4470         | 2/7/01      |
|                                 | 0100000. <b>=</b>      | C1455 0            | =, ,, 0 =   |



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# **EVIDENCE SUBMITTED**

| <b>Test Agency</b>                      | <b>Test Identifier</b> | <b>Description</b>       | <u>Date</u> |
|---|------------------------|--------------------------|-------------|
|   | JI 3001472             | Class 4470               | 2/7/01      |
|   | J.I. 0X2A3.AM          | Class 4470               | 01/13/93    |
|   | JI 3002688             | Class 4470               | 12/11/01    |
|   | JI 3014452             | Class 4470               | 07/30/02    |
|   | JI 1Y7A5.AM            | Windstorm Classification | 01/03/96    |
|   | JI 3002644             | Windstorm Classification | 12/22/99    |
|   | JI 3017037             | Windstorm Classification | 03/10/05    |
|   | JI 3014692             | Windstorm Classification | 12/20/02    |
|   | JI 3008869             | Windstorm Classification | 03/19/01    |
|   | ID 01669-267           | Product Name Change      | 10/26/05    |
|   | ID 1039-267            | Product Name Change      | 07/08/04    |
|   | JI 3009502             | Windstorm Classification | 12/21/00    |
|   | JI 2D5A9.AM            | Windstorm Classification | 06/22/99    |
|   | JI 3023458             | Windstorm Classification | 12/30/05    |
|   | JI 3009125             | Windstorm Classification | 07/30/01    |
|   | JI 3011494             | Windstorm Classification | 08/22/01    |
|   | JI 3028039             | Windstorm Classification | 09/11/06    |
| IRT-ARCON                               | PC03-001               | Uplift TAS 114-95        | 01/17/03    |
|   | PC03-002               | Uplift TAS 114-95        | 01/17/03    |
| Underwriters Laboratories               | R13327                 | Fire Classification      | 11/23/92    |
| Certified Testing Lab                   | CTLA 1020W             | HVHZ-Hurricane Shelter   | 03/27/03    |
| Atlantic & Caribbean Roof<br>Consulting | ACRC 06-028            | Windstorm Classification | 07/26/06    |



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#### APPROVED ASSEMBLIES

**Membrane Type:** APP

Deck Type 6I: Poured Gypsum, Insulated

Deck Description: Poured Gypsum Concrete

**System Type A(1):** Base layers of insulation adhered with approved OlyBond Adhesive Fastener.

#### All General and System limitations apply.

| Base Insulation Layer  | Insulation Fasteners<br>(Table 3) | Fastener Density/ft <sup>2</sup> |
|--|-----------------------------------|----------------------------------|
| Derbiboard, Derbiboard CA, Derbiboard composite<br>Minimum: 1.5" thick | N/A                               | N/A                              |
| AC-Foam II<br>Minimum: 1.0" thick                                      | N/A                               | N/A                              |
| E'NRG'Y 2<br>Minimum: 1.25" thick                                      | N/A                               | N/A                              |
| AC-Foam III<br>Minimum: 1.3" thick                                     | N/A                               | N/A                              |
| Dens-Deck or Securock<br>Minimum: ½" thick                             | N/A                               | N/A                              |

Note: All insulation shall be adhered to the Gypsum Concrete substrate using a heated spray foam application machine with a 1:1 mix ration of OlyBond dual component polyurethane adhesive at an application rate of 1 gallon per 100 square feet. (See Roofing Application Standard RAS 117 for insulation attachment).

Base Sheet: One ply of PRS Glass Ply IV, PRS Glass Ply VI, or PRS Modified Base, PRS Glass Base,

Derbibase or Derbibase Ultra, or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq.  $\pm$  15% or Permastic

adhesive at an application rate of 1.5 to 2gal./sq.

Ply Sheet: (Optional) One or two plies of PRS Glass Ply IV, VI, or Derbibase, Derbigum/Derbicolor GP or

XPS, PRS Modified Base Sheet, PRS Glass Base, Derbigum GP or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of

25 lb./sg.  $\pm$  15% or Permastic adhesive at an application rate of 1.5 to 2gal/sg.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP/FR or

Derbigum/Derbicolor XPS/FR, torch applied or Permastic adhesive at an application rate of 15.

to 2gal/sq. to base sheet.



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#### **Surfacing:**

Install one of the following (except over Derbigum GP/FR, Derbigum XPS/FR, Derbicolor GP/FR, or Derbicolor XPS/FR:

- 1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq.  $\pm$  15%.
- 2. APOC 400 applied at 1.3 gal./sq or Karnak #97 AF at an application rate of 1.5 gal./sq. APOC # 302 applied at an application rate of 3 gal./sq

Maximum Design Pressure:

-135 psf. (See General Limitation #9)



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**Membrane Type:** APP

**Deck Type 6:** Poured Gypsum, Non-Insulated

**Deck Description:** Poured Gypsum Concrete

**System Type E(1):** Base sheet mechanically fastened.

**Base Sheet:** One ply of PRS Glass Base, PRS Modified Base Sheet, Derbigum GP, Derbibase, or Derbibase

Ultra mechanically fastened to the deck as detailed below.

**Fastening:** Fasten base sheet with approved fasteners at a 4" side lap 12" o.c. and two rows staggered in the

center of the sheet 18" o.c. See System Limitation # 4.

**Ply Sheet:** Derbigum GP, Derbibase, or Derbibase Ultra.

**Membrane:** Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP/FR or

Derbigum/Derbicolor XPS/FR, torch applied or Permastic adhesive at an application rate of 15.

to 2gal/sq. to base sheet.

Surfacing: Install one of the following (except over Derbigum GP/FR, Derbigum XPS/FR, Derbicolor

GP/FR, or Derbicolor XPS/FR:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq.  $\pm$ 

15%.

2. APOC 400 applied at 1.3 gal./sq or Karnak #97 AF at an application rate of 1.5 gal./sq.

APOC # 302 applied at an application rate of 3 gal./sq

**Maximum Design** 

**Pressure:** 

-45 psf. (See General Limitation #9)



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#### **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
  - Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant. (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code

#### END OF THIS ACCEPTANCE



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